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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/623,145

07/18/2003

George K. Stookey

22076-2

5211

7590 06/26/2007
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EXAMINER

SAYALA, CHHAYA D

ART UNIT

PAPER NUMBER

1761

MAIL DATE

DELIVERY MODE

06/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/623,145	Applicant(s) STOOKEY, GEORGE K.	
	Examiner C. SAYALA	Art Unit 1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spanier et al. (US Patents 5011679 and 5114704) in view of Witt et al. (U Patent 6350438) and further in view of Perlberg et al. (US Patent 6223643).

Both the Spanier patents teach rawhide being coated with inorganic polyphosphate with the formula $M_{n+2}P_nO_{3n+1}$, $n=3$, (see col. 12, lines 6-13 in both), wherein the pyrophosphates are known to be anti-tartar, anti-plaque or anti-calculus agents. (Col. 9, lines 55-60, col. 9, lines 58-59, respectively). In Spanier '704, the patentees teach that the coated rawhide can be used for both dogs as well as cats (col. 14, lines 25+ in '704). Also, note the amounts of pyrophosphate in Table 1, 0.25-5%. The patentees also teach using such a coating on other dog foods, such as biscuits. The patent teaches packaging such products. It would therefore, have been obvious to package the rawhide coated product too, and packaging such rawhide chews is a commonplace expedient as any store which sells such products will show. The patent does not teach tripolyphosphates ($Na_5P_3O_{10}$) per se or cetyl pyridinium salts.

Witt et al. teach antiplaque antimicrobial agents in an amount of at least .01% by weight . See cetyl pyridinium chloride shown at col. 16, line 43, as such an agent. The patent also discloses tripolyphosphate as an anti-calculus agent in an amount 1.5-15%. See col. 14, line 51, col. 15, lines 17-23, line 40 and specifically line 32. The composition is applied to chews such as rawhide (col. 19, lines 7, 10-11) or even incorporated into the rawhide product (lines 9-11, col. 19). Witt et al. specifically teach that tripolyphosphate may be used in place of pyrophosphates, suggesting therefore, the replacement of pyrophosphate of Spanier et al. with tripolyphosphate.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply on or incorporate in rawhide, such as that of Spanier et al. with the polyphosphate of Witt et al. for its benefit as an anti-calculus agent and to combine such a composition with cetyl pyridinium salt, also disclosed by Witt et al., for its established benefit as an antimicrobial agent. To apply the amounts or to optimize the ranges shown by the above references when such a combination is made would have been within the realm of the artisan, bearing in mind the usefulness of the two ingredients, each for its established utility and benefit for rawhide application. To provide the number of chews to a pet would have been obvious also, depending on the advice of a veterinarian or as desired by the pet owner. With regard to claims 3 and 4 or 22, Perlberg et al. is exemplary in teaching the formation of rawhide chews in which at least one antimicrobial is used for treating the rawhide which is chopped to bits before being mixed with the other ingredients as well as a binder (col. 4, line 51+). Therefore to follow such a patent and then to apply the composition of the combination

of an anticalculus agent and an antimicrobial agent both shown as being useful when applied to a rawhide by the Witt et al. reference, would have been obvious.

Response to Arguments

Applicant's arguments filed 5/7/2007 have been fully considered but they are not persuasive.

Spanier et al. teach coating rawhide with pyrophosphates, including polyphosphate, for its anti-calculus action. Witt et al. teach that tripolyphosphate and cetyl pyridinium chloride can be used on or incorporated in rawhide chews, and also that tripolyphosphate can be used in place of tetrapolyphosphate, enabling a substitution of the tetrapolyphosphate in Spanier's invention that is drawn to a rawhide product. Perlberg teaches the same preparation as claimed herein, of a rawhide chew that is manufactured from rawhide bits, since in order to coat a rawhide chew, a person of ordinary skill in the art would necessarily have to manufacture a rawhide chew to begin with. Therefore, one of ordinary skill in the art would have considered such a reference mainly because it relates to manufacturing a chew from rawhide.

In his remarks, applicant has pointed to Example 2 and the results therein, and states that substantial reductions were established in dental plaque and calculus by use of the inventive rawhide. On page 3, applicant states that most of the secondary references relate to human use that has been extended to animals, and the composition

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of calculus in humans is calcium phosphate whereas in dogs, it is calcium hydroxyapatite. At pages 3-4, applicant cites a number of references to establish this, without providing any reference to substantiate such an assertion. In any event, it is to be noted that Witt et al., a secondary reference, is drawn to animals and humans.

At page 5, applicant states that Spanier et al. teach a pyrophosphate "instead of any other organic phosphate compounds". This is strongly disagreed with and the rejection, while providing evidence that substituting a pyrophosphate with polyphosphate was also shown by prior art, has now been expanded to specifically point out that the Spanier disclosure envisions polyphosphate as one of its compounds.

That Witt et al. shows "disparate lists" is applicant's opinion, because Witt et al. is drawn to topical care for both animals and humans including a polyphosphate in place of or in combination with a pyrophosphate as an anti-calculus agent and CPC as an antimicrobial antiplaque agent. The other secondary references have been withdrawn as being redundant in view of the secondary references and to narrow the issues pending.

With regard to applicant's criticism of Perlberg, this reference was relied on only for its disclosure of manufacturing a rawhide chew and not for its antimicrobial agent as applicant states.

In response to applicant's pointing out the results in Example 2, it is well established that the advantage relied upon must be a significant advantage. See *In re Nolan*, 193 USPQ 641. Table 2 shows a significant advantage in a reduction of gingivitis only when compared to the placebo treat. However, the claims are not drawn

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to reducing gingivitis in dogs, but to an animal chew product, a method of manufacturing the product and a method of oral care *in an animal*. The method of oral care in an animal includes cats or any other domestic animal and oral care includes other oral conditions such as odor, calculus, etc. Any one of these well-established case law applies:

- that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).
- that the objective evidence of nonobviousness must be commensurate in scope with the claims. See *In re Hyson*, 172 USPQ 399, *In re Tiffin*, 171 USPQ 294, *In re Lindner*, 173 USPQ 356.

In summary, Spanier et al. establish pyrophosphates, including polyphosphate as an anticalculus agent for animals to be used as a coating for rawhide chews. Witt et al. teach using polyphosphate in combination with pyrophosphate or in place of pyrophosphate for its anti-calculus property and CPC for its antimicrobial antiplaque properties, and in rawhide chews (col. 19, lines 7-17).

Pet care products such as foods, chews and toys are generally formulated to contain from 0.2 mg to 200 mg chlorite per unit of product to be administered to the animal. The chlorite can be incorporated for example, into a relatively supple but strong and durable material such as rawhide, ropes made from natural or synthetic fibers, and polymeric articles made from nylon, polyester or thermoplastic polyurethane. As the animal chews, licks or gnaws the product, chlorite **and any other**

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incorporated active elements are released into the animal's oral cavity into a salivary medium, comparable to an effective brushing or rinsing. (emphasis added)

Therefore, even if it is assumed that chlorite is included in the composition, Witt et al. clearly indicates that the other actives are released by the gnawing action of the animal from the rawhide. Furthermore, the instant claims do not exclude chlorite. From the disclosure as discussed above, these patents clearly suggest and motivate one of ordinary skill in the art to coat the rawhide chew with the polyphosphate and CPC, and indicate that they are useful for their anti-calculus, anti-plaque and anti-microbial properties, and while it is also well established that a compound and its properties are inseparable, In re Papesch, 137 USPQ 43 (CCPA 1963), whatever the rawhide composition that includes such compounds, one skilled in the art would have reasonably expected that the properties would remain the same and would provide anti-calculus, anti-plaque and anti-microbial properties to the rawhide.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

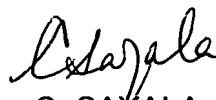
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Sayala whose telephone number is (571) 272-1405. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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Group 1700.